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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/274,157	03/22/1999	JEFFREY S. MCVEIGH	42390.P7111	8057

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EXAMINER	
LEE, RICHARD J	
ART UNIT	**PAPER NUMBER**
2621	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/274,157	MCVEIGH ET AL.	
	Examiner	Art Unit	
	Richard Lee	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The request filed on May 11, 2006 for a Request for Continued Examination (RCE) is acceptable and a RCE has been established. An action on the RCE follows.

2. It is to be noted that there was a printer rush after the Notice of Allowance dated February 6, 2006 to provide the correct continuation relationship to the present application at page 1 of the Specification (see attached Interview Summary).

In view of the discussion with Mr. Paul Mendonsa on July 20, 2006 (see attached Interview Summary), it is suggested for the applicants to make the following changes to page 1 of the Specification:

(a) at page 1, line 5 of the Specification, "as well as to" should be changed to "and is a CIP of"; and

(b) at page 1, line 7 of the Specification, after "1998", ", now U.S. Patent No. 6,904,174" should be properly inserted.

3. Upon further search and consideration, and in view of the newly discovered Ngai et al reference (5,650,823), the following grounds of rejections are deemed appropriate. The Examiner apologizes for any inconvenience that this may have caused for the applicants.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting

ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 20 of copending Application No. 09/274,152. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons. Claim 1 in general is broader in scope than claim 20 of '152. For example, claim 20 of '152 includes the specifics of unidirectional predicting of the content of each of a plurality of fields in non-reference frames and select reference frames using information contained in corresponding fields of a single past or subsequent, temporally closest reference frame (see claim 20, lines 5-7 of '152), essentially unidirectionally predicting a non reference frame on the field level. Claim 20, lines 8-10 further recites the features of "wherein the unidirectionally predicted non-reference frames comprise a frame that is defined as a bi-directionally predicted frame according to an encoding protocol for the stream of data". Claim 20 of '152 therefore includes the specifics of unidirectionally predicting a B-frame on the field level, while claim 1 recites, as shown at line 4 unidirectionally predicting content of each B-frame. The unidirectionally predicting of the content of each B-frame within claim 1 may obviously be performed at the field level as taught in claim 20 of '152. In other words, the "content" of each B frame as claimed in claim 1 can be viewed as the slice, fields, macroblocks, or blocks of the B-frame. Claim 20, lines 8-10 ultimately provides unidirectionally predicted B frames, which is not patentably distinct from claim 1 since claim 1 possesses similar features. Though claim 20 of '152 recites the specifics of unidirectional predicting the content of each of a

plurality of fields in non-reference frames (which is defined as B-frames at line 9) and select reference frames (i.e. anchor frames are considered reference frames) using corresponding fields of a single past or subsequent temporally closest reference frame, it is considered obvious again that the "unidirectionally predicting content of each B-frame from a temporally closest anchor frame" as shown in claim 1, lines 4-5 may obviously be performed at the field level as taught in claim 20 of '152. Further, the particular features of using "corresponding fields of a single past or subsequent, temporally closest, reference frame" as recited in claim 20 of '152 in the prediction is equivalent to the use of "a temporally closest anchor frame" as recited in claim 1.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ngai et al (5,650,823).

Ngai et al discloses a half pel motion estimation method for B pictures as shown in Figures 1, 3, and 5, and the same method for performing motion estimation as claimed in claims 1-5, comprising the same receiving a stream of data comprising one or more bidirectionally interpolated frames and a plurality of anchor frames (see Figure 1 and column 2, lines 4-19); unidirectionally predicting content of each B-frame from a temporally closest anchor frame (see

column 2, lines 45-52); wherein the content of the B-frames is unidirectionally predicted fro the content of the temporally closest anchor frame and one or more motion vectors, wherein the one or more motion vectors represent an activity measure of the temporally closest anchor frame and wherein the motion vector is determined by a sum of absolute differences in activity within the temporally closest anchor frame (see column 2, lines 20-62, column 3, line 66 to column 4, line 14, column 4, line 65 to column 6, line 8); and wherein the temporally closest anchor frame selected to unidirectionally predict the content of the B-frame may either precede or supersede the B-frame (i.e., backward prediction from the closest future "I" or "P" picture is considered the unidirectional prediction of the B-frame with the temporally closest superceding anchor frame, and forward prediction from the closest past "I" or "P" picture is considered the unidirectional prediction of the B-frame with the temporally closest preceding anchor frame, see column 2, lines 46-52).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngai et al as applied to claims 1-5 in the above paragraph (7), and further in view of Ju of record (5,801,778).

Ngai et al discloses substantially the same method for performing motion estimation as above, but does not particularly disclose wherein the plurality of anchor frames and B-frames contain progressive and interlaced video content as claimed in claims 6 and 7. Such technical

features are however made obvious by Ju (see column 1, lines 26-48, column 2, lines 18-50). Therefore, it would have been obvious to one of ordinary skill in the art, having the Ngai et al and Ju references in front of him/her and the general knowledge of the scanning of video frames, would have had no difficulty in providing the progressive and/or interlaced scanning of video frames as taught by Ju for the plurality of anchor frames and B-frames within Ngai et al for the same well known scanning of video frames for display purposes as claimed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

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7/21/06